

# Community Need

2021 Summary



## Landfill & Recycling

### Strategy

#### Target Outcome

We envision minimizing waste disposal and maximizing waste diversion

#### Strategic Context

##### Strategies

- [Solid Waste Management Plan](#) – guides how the region will manage solid waste, including recyclables, compostable material and garbage from homes, businesses and institutions, as well as construction and demolition sites
- [Hartland Environmental Programs](#) – the Hartland Landfill Environmental Programs provide a comprehensive program to monitor and evaluate the effects of landfilling operations on the environment.

##### Trends, risks and issues

- Hartland public drop-off area is experiencing increased customer volumes of homeowners dropping off garbage and recycling. Increased WorkSafe requirements when receiving homeowner renovation and demolition materials at the landfill.
- Ongoing consideration of solid waste resource recovery projects to maximize the environmental/economic benefits associated with waste diversion and disposal.
- A new Solid Waste Management Plan (SWMP) is currently being drafted and should be completed and approved by the Province by the end of 2021.
- The ongoing efforts to engage with local communities regarding the application of biosolids at Hartland Landfill is likely to continue for the next five years during development of the long-term biosolids management plan.

### Services

Core Services Levels	
Service	Levels
<b>Diversion Services</b> Responsible for solid waste management planning in the Capital Region, including policy and program development to increase waste reduction or recycling.	<ul style="list-style-type: none"> <li>Planning &amp; policy development activities include the SWMP and the administration of 49 contracts and agreements and Compost Facilities Bylaw</li> <li>Delivery of the recycling programs, which include curbside collection from 123,000 households and packaging, printed paper and glass collection from six electoral area depots. Today, Hartland recycling facility collects over 80 items from 28 product categories</li> </ul>
<b>Landfilling Services</b> Ensure regional landfill capacity with the operation of the CRD's Hartland Landfill. Ongoing capital and operating investments are made at Hartland to ensure compliance with BC Ministry of Environment landfill regulations, including leachate and landfill gas management infrastructure.	<ul style="list-style-type: none"> <li>Administration of five contracts and agreements</li> <li>Residential service at bin area (9am-6pm weekdays, 9am-2pm Saturdays)</li> <li>Commercial service at active face (7am-5pm weekdays, 9am-2pm Saturdays)</li> </ul>
<b>Resource Recovery Services</b> Installation and operation of landfill collection and utilization infrastructure at Hartland Landfill to ensure landfill gas (methane) destruction and compliance with provincial environmental regulations. Seek to maximize the environmental and financial benefits of Hartland Landfill gas utilization.	<ul style="list-style-type: none"> <li>Electricity generation using landfill gas generates enough electricity to power 1,600 homes</li> </ul>
<b>Hartland Environmental Programs</b> Monitoring, assessment and technical reporting to support regulatory compliance and contaminant reduction at Hartland Landfill	<ul style="list-style-type: none"> <li>Regulatory compliance monitoring of surface water, groundwater, landfill gas and leachate</li> </ul>

# Community Need



## 2021 Summary

<b>Engineering Services</b> Provide engineering feasibility studies, detailed design, tendering, construction management and commissioning services that support a number of community needs (Landfill & Recycling, Parks & Environmental Resource Management, Health Facilities, Climate Action, Recreation and Electoral Areas).	<ul style="list-style-type: none"> <li>Lead or support the planning, design and project management of over a dozen construction projects averaging \$3.5 to \$5 million annually</li> <li>Projects include ongoing contract management of the solid waste filling and aggregate production contracts, as well as smaller projects related to landfill gas collection, leachate management, environmental controls and emergency response preparation</li> <li>Engineering Services also manages an additional 15-20 projects each year for other CRD facilities</li> <li>Lead engineering and procurement on the RNG and Kitchen Scraps and Organics Processing Capital Projects</li> </ul>
<b>Support Services</b> The core services listed rely on the support of several corporate and support divisions to effectively operate on a daily basis. These services are reported on in the Accountability Community Need Summary.	<ul style="list-style-type: none"> <li>Services include Human Resources &amp; Corporate Safety, Corporate Communications, Asset Management, Financial Services, Information Technology &amp; GIS, Information Services, Legislative Services, Facility Management, Fleet Management, Legal Services, Risk &amp; Insurance and Real Estate Services.</li> </ul>

Initiatives					
Ref	Initiative	Description	Year(s)	Status	2021 impacts
9a-1.1	Senior Project Coordinator, Resource Recovery	Position to facilitate Hartland resource recovery projects (including RNG and potentially organics processing)	2021 - 2023	NEW Not started	1.0 Term
9b-0.1	Hartland Waste Technician	Increase resourcing from half to 1FTE to monitor and enforce WorkSafe BC material handling protocols	2021	NEW Not started	1.0 Ongoing
9b-0.2	Hartland Landfill Attendant	Conversion of two part-time auxiliary positions to ongoing to meet increasing volumes of waste at public drop off area	2021	NEW Not started	2 x 0.5 Converted

# Community Need



## 2021 Summary

9b-0.3	Food Waste Attendance	Term position to facilitates the consolidation and trucking of materials brought to the Hartland kitchen scraps transfer station by commercial waste haulers	2021 - 2022	NEW Not started	1.0 Term
--------	-----------------------	--	-------------	--------------------	----------

### Initiative approved in prior years which have now been delivered or absorbed in Core Services:

- 9a-1 – Resource Recovery and Waste Reduction
- 9a-2 – Infoline Support \*
- 9b-1 – Public Awareness of Extended Producer Responsibility
- 9b-2 – SWMP Update
- 9b-3 – Controlled Waste Permits \*
- 9b-4 – Electronic Stewardship Attendant \*
- 9c-1 – Changing Recycling Markets
- 9d-1 – Hartland Landfill Longevity
- 9e-1 – Organic Waste Processing Procurement

\*New – Initiatives not in the 2019-2022 Corporate Plan

## Business Model

### Funding

#### Who contributes

- Every jurisdiction in the region – not requisition/tax based – user fee-for-service based
- Support Services: varies per service

#### Funding Sources

- Landfill tipping fees and recycling program revenues

### Reporting Structure

- [Environmental Services Committee](#)
- Project based reporting for Environmental Engineering: Parks Committee, Electoral Areas Committee, Recreations

Community Need Key Performance Indicator (KPI)			
Definition and Source	2019 Actual	2020 Forecast	2021 Target
<b>Metric 1: Solid waste disposal target rate of 350 kg/person per year by 2020</b> Annual kilos of solid waste per capita; calculation based on provincial Municipal Solid Waste methodology	382	360	350
<b>Metric 2: Capture 75% of landfill gas at Hartland landfill</b> Percentage of landfill gas captured at Hartland Landfill; data from CRD staff measurement and calculation	66%	65%	70%
<b>Metric 3: Waste compaction rate at Hartland Landfill of 850 kg/m<sup>3</sup></b> Kilos per cubic metre; data from CRD staff measurement	1,160	950	950
Discussion			
<p><b>Link to Target Outcome</b></p> <p>The landfill and recycling metrics focus on minimizing waste disposal and maximizing waste diversion (Metric 1) while ensuring they are done efficiently (Metric 3) and environmentally sustainably (Metric 2).</p> <p><b>Discussion</b></p> <ul style="list-style-type: none"> <li>• <b>Metric 1:</b> Currently, the capital region's waste disposal rate is at 382 kg/person per year, which is better than the provincial average of 506 kg/person (2017) and well on the way to the target set by the province of 350kg/capita.</li> <li>• <b>Metric 2:</b> There is a target set by the province to capture 75% of landfill gas.</li> <li>• <b>Metric 3:</b> Effective waste compaction results in efficient use of landfill airspace and the prolonged use of existing landfill capacity.</li> </ul>			